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SEARCH REQUEST FORM

Scientific and Technical Information Center

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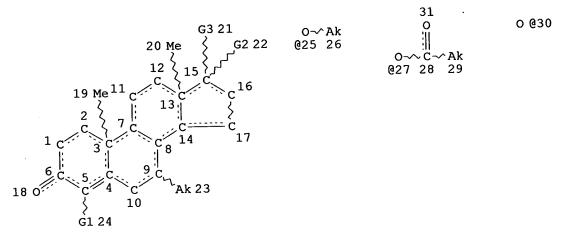
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GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 35

STEREO ATTRIBUTES: NONE

119 SEA FILE=REGISTRY SSS FUL L1 L3

1 SEA FILE=HCAPLUS ABB=ON PLU=ON L3 L4

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ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS 2000:442168 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

133:74180

TITLE:

Preparation of new testosterone derivatives and their

use in the long-term therapy of androgen-dependent

illnesses

INVENTOR(S): Cleve, Arwed; Sauer, Gerhard; Huwe, Christoph;

Parczyk, Karsten; Hoffmann, Jens; Schneider, Martin

PATENT ASSIGNEE(S): Schering A.-G., Germany

SOURCE: Ger. Offen., 41 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

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		•••	CZ.	DK.	DM.	EE.	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,	lЬ,	IN,
			TS.	JP.	KE.	KG.	KP.	KR.	KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,
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			SL.	TJ.	TM.	TR.	TT,	TZ,	UA,	ŪĠ,	US,	UZ,	VN,	ΥU,	ZA,	ZW,	AM,	ΑZ,
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

The available invention concerns new 7.alpha.,17.alpha.,17.beta.-substituted testosterone derivs. I [A = C6-13-alkylene; B = O, S(O)p, NY, NYCO, NYSO2, OSO2, OSiMe2, SCO, connection between A and CC; p = 0, 1, 2; Y = H, C1-8-alkyl, or together with CC a connection between A and CD, CC a connection between B and CD, or together with B a connection between A and CD, C1-6-alkyl, (un)substituted phenylene, vinyl, C1-4-alkoxy; C1-4-alkoxycarbonyl, bis(C1-4-alkoxycarbonyl)methyl] and their use as pure anti-androgens in the long-term therapy of androgen-dependent illnesses, in particular for the long-term anti-androgen therapy of the prostate carcinomas. Thus, antiandrogen II was prepd. from 17.alpha.-methyl-3-oxoandrosta-4,6-dien-17.beta.-yl acetate (III). II was tested for antiproliferation activity against against human prostate carcinoma LNCaP [IC50 = 40 nM].

IT 278603-67-1P 278603-68-2P 278603-72-8P 278603-92-2P 278603-97-7P 278604-10-7P

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278604-11-8P 278604-12-9P 278604-20-9P
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    278604-66-3P 278604-79-8P 278604-80-1P
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    278605-09-7P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
     (Reactant or reagent); USES (Uses)
        (prepn. of new testosterone derivs. and their use in the long-term
        therapy of androgen-dependent illnesses)
    278603-67-1 HCAPLUS
RN
    Pregn-4-en-3-one, 7-(8-chlorooctyl)-20,20,21,21,21-pentafluoro-17-hydroxy-
CN
     , (7.alpha., 17.alpha.) - (9CI) (CA INDEX NAME)
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Absolute stereochemistry.

RN 278603-72-8 HCAPLUS

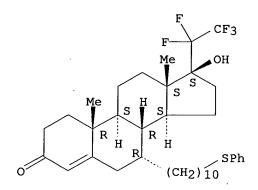
CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[8-(phenylthio)octyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278603-92-2 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[10-(phenylthio)decyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 278603-97-7 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-(13-iodotridecyl)-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

RN 278604-10-7 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-(6-hydroxyhexyl)-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-11-8 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[6-[[(4-methylphenyl)sulfonyl]oxy]hexyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-12-9 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-(6-iodohexyl)-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-20-9 HCAPLUS

CN Androst-4-en-3-one, 17-(acetyloxy)-7-[9-[[(1,1-dimethylethyl)dimethylsilyl]oxy]nonyl]-17-methyl-, (7.alpha.,17.beta.)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-21-0 HCAPLUS

CN Androst-4-en-3-one, 17-(acetyloxy)-7-[7-[[(1,1-dimethylethyl)dimethylsilyl]oxy]heptyl]-17-methyl-, (7.alpha.,17.beta.)-(9CI) (CA INDEX NAME)

RN 278604-22-1 HCAPLUS

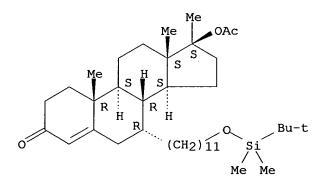
CN Androst-4-en-3-one, 17-(acetyloxy)-7-[10-[[(1,1-dimethylethyl)dimethylsilyl]oxy]decyl]-17-methyl-, (7.alpha.,17.beta.)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-23-2 HCAPLUS

CN Androst-4-en-3-one, 17-(acetyloxy)-7-[11-[[(1,1-dimethylethyl)dimethylsilyl]oxy]undecyl]-17-methyl-, (7.alpha.,17.beta.)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 278604-24-3 HCAPLUS

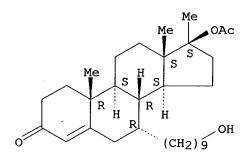
CN Androst-4-en-3-one, 17-(acetyloxy)-7-[7-(4-chlorobutoxy)heptyl]-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME).

Absolute stereochemistry.

RN 278604-25-4 HCAPLUS

CN Androst-4-en-3-one, 17-(acetyloxy)-7-(9-hydroxynonyl)-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

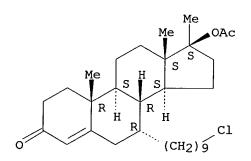
Absolute stereochemistry.



RN 278604-26-5 HCAPLUS

CN Androst-4-en-3-one, 17-(acetyloxy)-7-(9-chlorononyl)-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

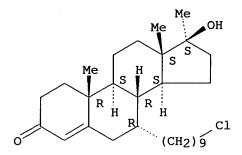
Absolute stereochemistry.



RN 278604-27-6 HCAPLUS

CN Androst-4-en-3-one, 7-(9-chlorononyl)-17-hydroxy-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

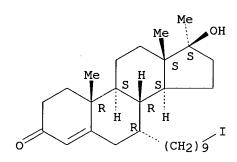
Absolute stereochemistry.



RN 278604-28-7 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-7-(9-iodononyl)-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

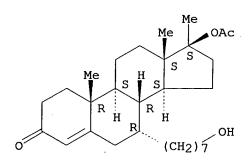
Absolute stereochemistry.



RN 278604-30-1 HCAPLUS

CN Androst-4-en-3-one, 17-(acetyloxy)-7-(7-hydroxyheptyl)-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



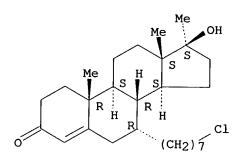
RN 278604-31-2 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-7-(7-hydroxyheptyl)-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-32-3 HCAPLUS

CN Androst-4-en-3-one, 7-(7-chloroheptyl)-17-hydroxy-17-methyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

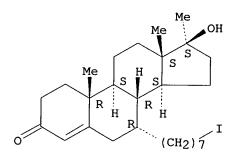
Absolute stereochemistry.



RN 278604-33-4 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-7-(7-iodoheptyl)-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



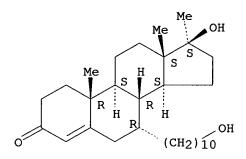
RN 278604-35-6 HCAPLUS

CN Androst-4-en-3-one, 17-(acetyloxy)-7-(10-hydroxydecyl)-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-36-7 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-7-(10-hydroxydecyl)-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

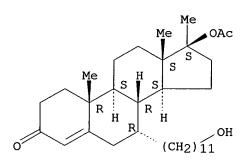
Absolute stereochemistry.



RN 278604-38-9 HCAPLUS

CN Androst-4-en-3-one, 17-(acetyloxy)-7-(11-hydroxyundecyl)-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 278604-39-0 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-7-(11-hydroxyundecyl)-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-40-3 HCAPLUS

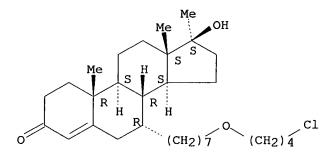
CN Androst-4-en-3-one, 7-(11-bromoundecyl)-17-hydroxy-17-methyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-41-4 HCAPLUS

CN Androst-4-en-3-one, 7-[7-(4-chlorobutoxy)heptyl]-17-hydroxy-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



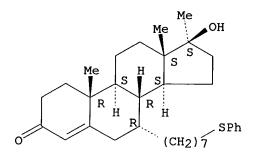
RN 278604-42-5 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-7-[7-(4-iodobutoxy)heptyl]-17-methyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-43-6 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[7-(phenylthio)heptyl]-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

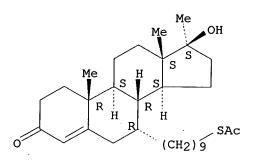
Absolute stereochemistry.



RN 278604-46-9 HCAPLUS

CN Androst-4-en-3-one, 7-[9-(acetylthio)nonyl]-17-hydroxy-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 278604-52-7 HCAPLUS

CN Androst-4-en-3-one, 7-[9-[[5-[[(1,1-dimethylethyl)dimethylsilyl]oxy]pentyl | thio]nonyl]-17-hydroxy-17-methyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-57-2 HCAPLUS

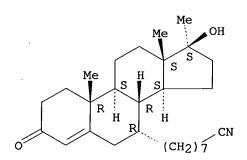
CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[7-[(4,4,5,5,5-pentafluoropentyl)thio]heptyl]-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-60-7 HCAPLUS

CN Androst-4-ene-7-octanenitrile, 17-hydroxy-17-methyl-3-oxo-, (7.alpha., 17.beta.) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 278604-66-3 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[11-[(4,4,5,5,5-pentafluoropentyl)thio]undecyl]-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-79-8 HCAPLUS

CN Androst-4-ene-7-nonanoic acid, 17-(acetyloxy)-17-methyl-3-oxo-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-80-1 HCAPLUS

CN Androst-4-ene-7-nonanamide, 17-(acetyloxy)-N-butyl-N,17-dimethyl-3-oxo-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278605-00-8 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-7-[9-[(5-hydroxypentyl)thio]nonyl]-17-methyl-, (7.alpha,,17.beta.)- (9CI) (CA INDEX NAME)

RN 278605-02-0 HCAPLUS

CN Pregn-4-en-3-one, 7-(10-bromodecyl)-20,20,21,21,21-pentafluoro-17-hydroxy-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278605-05-3 HCAPLUS

CN Pregn-4-en-3-one, 7-(13-chlorotridecyl)-20,20,21,21,21-pentafluoro-17-hydroxy-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278605-09-7 HCAPLUS

CN Pregn-4-en-3-one, 7-[6-(acetyloxy)hexyl]-20,20,21,21,21-pentafluoro-17-hydroxy-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

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     278604-94-7P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of new testosterone derivs. and their use in the long-term
        therapy of androgen-dependent illnesses)
RN
     278603-70-6 HCAPLUS
CN
     Pregn-4-ene-7-nonanenitrile, 20,20,21,21,21-pentafluoro-17-hydroxy-3-oxo-,
     (7.alpha., 17.alpha.) - (9CI) (CA INDEX NAME)
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RN 278603-74-0 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[8-(phenylsulfinyl)octyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278603-75-1 HCAPLUS

CN Pregn-4-en-3-one, 7-[8-[(2-chlorophenyl)thio]octyl]-20,20,21,21;21-pentafluoro-17-hydroxy-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278603-76-2 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[8-(2-pyridinylthio)octyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278603-77-3 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[8-(2-pyrimidinylthio)octyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278603-79-5 HCAPLUS

CN Pregn-4-en-3-one, 7-[8-(2-benzothiazolylthio)octyl]-20,20,21,21,21-pentafluoro-17-hydroxy-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

RN 278603-81-9 HCAPLUS

CN Pregn-4-en-3-one, 7-[8-[(6-ethoxy-2-benzothiazolyl)thio]octyl]20,20,21,21,21-pentafluoro-17-hydroxy-, (7.alpha.,17.alpha.)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

RN 278603-82-0 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[8-(2-thiazolylthio)octyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

RN 278603-83-1 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[8-[(1-methyl-1H-imidazol-2-yl)thio]octyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278603-84-2 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[8-[(5-methyl-1,3,4-thiadiazol-2-yl)thio]octyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

RN 278603-85-3 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[8-(2-thienylthio)octyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278603-86-4 HCAPLUS

CN Butanamide, 2,2,3,3,4,4,4-heptafluoro-N-[8-[(7.alpha.,17.alpha.)-20,20,21,21,21-pentafluoro-17-hydroxy-3-oxopregn-4-en-7-yl]octyl]- (9CI) (CA INDEX NAME)

RN 278603-88-6 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[8-[(4-methylphenyl)sulfonyl]octyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278603-89-7 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[8-[(3-methylphenyl)sulfonyl]octyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

RN 278603-94-4 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[10-(phenylsulfinyl)decyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278603-98-8 HCAPLUS

CN Pregn-4-ene-7-tetradecanenitrile, 20,20,21,21,21-pentafluoro-17-hydroxy-3-oxo-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-00-5 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[13-(phenylthio)tridecyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-01-6 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[13-[(3-methylphenyl)thio]tridecyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-02-7 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[13-(2-pyridinylthio)tridecyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

RN 278604-03-8 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[13-(2-pyrimidinylthio)tridecyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-04-9 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[13-[(1-methyl-1H-imidazol-2-yl)thio]tridecyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

RN 278604-05-0 HCAPLUS

CN Pregn-4-en-3-one, 7-[13-(2-benzothiazolylthio)tridecyl]-20,20,21,21,21-pentafluoro-17-hydroxy-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-06-1 HCAPLUS

CN Pregn-4-en-3-one, 7-[13-[(6-ethoxy-2-benzothiazolyl)thio]tridecyl]-20,20,21,21,21-pentafluoro-17-hydroxy-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

RN 278604-07-2 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[13-(2-thiazolylthio)tridecyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-08-3 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[13-[(4-methylphenyl)sulfonyl]tridecyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

RN 278604-13-0 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[6-(phenylthio)hexyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-14-1 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[6-(phenylsulfonyl)hexyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

RN 278604-15-2 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[6-(2-pyridinylthio)hexyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-16-3 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[6-(2-pyrimidinylthio)hexyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-17-4 HCAPLUS

CN Pregn-4-en-3-one, 7-[6-[(4,6-dimethyl-2-pyrimidinyl)thio]hexyl]-20,20,21,21,21-pentafluoro-17-hydroxy-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

RN 278604-18-5 HCAPLUS

CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[6-[(1-methyl-1H-imidazol-2-yl)thio]hexyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-19-6 HCAPLUS

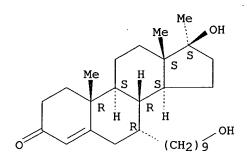
CN Pregn-4-en-3-one, 20,20,21,21,21-pentafluoro-17-hydroxy-7-[6-(2-thiazolylthio)hexyl]-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

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RN 278604-29-8 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-7-(9-hydroxynonyl)-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

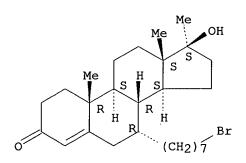
Absolute stereochemistry.



RN 278604-34-5 HCAPLUS

CN Androst-4-en-3-one, 7-(7-bromoheptyl)-17-hydroxy-17-methyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 278604-37-8 HCAPLUS

CN Androst-4-en-3-one, 7-(10-chlorodecyl)-17-hydroxy-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-44-7 HCAPLUS

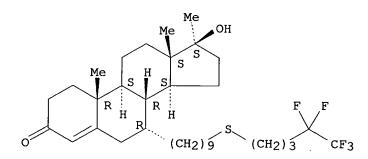
CN Androst-4-ene-7-decanenitrile, 17-hydroxy-17-methyl-3-oxo-, (7.alpha., 17.beta.) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-45-8 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[9-[(4,4,5,5,5-pentafluoropentyl)thio]nonyl]-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



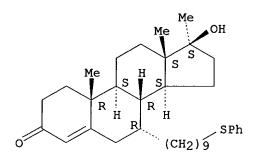
RN 278604-47-0 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[9-(pentylthio)nonyl]-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-48-1 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[9-(phenylthio)nonyl]-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

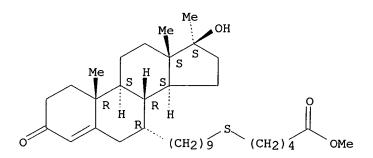
Absolute stereochemistry.



RN 278604-49-2 HCAPLUS

CN Pentanoic acid, 5-[[9-[(7.alpha.,17.beta.)-17-hydroxy-17-methyl-3-oxoandrost-4-en-7-yl]nonyl]thio]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 278604-50-5 HCAPLUS

CN Androst-4-en-3-one, 7-[9-[(5-chloropentyl)thio]nonyl]-17-hydroxy-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-51-6 HCAPLUS

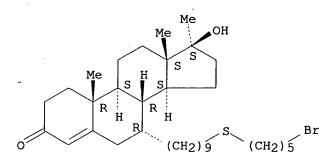
CN Pentanenitrile, 5-[[9-[(7.alpha.,17.beta.)-17-hydroxy-17-methyl-3-oxoandrost-4-en-7-yl]nonyl]thio]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-53-8 HCAPLUS

CN Androst-4-en-3-one, 7-[9-[(5-bromopentyl)thio]nonyl]-17-hydroxy-17-methyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



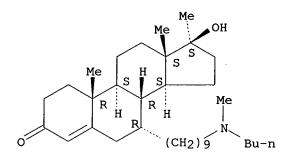
RN 278604-54-9 HCAPLUS

CN Androst-4-en-3-one, 7-(9-azidononyl)-17-hydroxy-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-55-0 HCAPLUS

CN Androst-4-en-3-one, 7-[9-(butylmethylamino)nonyl]-17-hydroxy-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

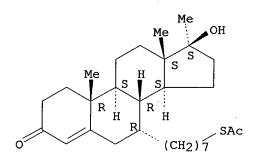
Absolute stereochemistry.



RN 278604-56-1 HCAPLUS

CN Androst-4-en-3-one, 7-[7-(acetylthio)heptyl]-17-hydroxy-17-methyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 278604-58-3 HCAPLUS

CN Androst-4-en-3-one, 7-[7-(butylmethylamino)heptyl]-17-hydroxy-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-59-4 HCAPLUS

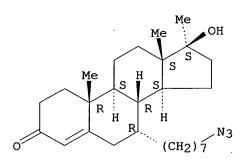
CN Pentanamide, N-[7-[(7.alpha.,17.beta.)-17-hydroxy-17-methyl-3-oxoandrost-4-en-7-yl]heptyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-61-8 HCAPLUS

CN Androst-4-en-3-one, 7-(7-azidoheptyl)-17-hydroxy-17-methyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 278604-62-9 HCAPLUS

CN Methanesulfonamide, N-[7-[(7.alpha.,17.beta.)-17-hydroxy-17-methyl-3-oxoandrost-4-en-7-yl]heptyl]- (9CI) (CA INDEX NAME)

RN 278604-63-0 HCAPLUS

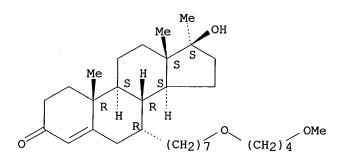
CN Pentanenitrile, 5-[[7-[(7.alpha.,17.beta.)-17-hydroxy-17-methyl-3-oxoandrost-4-en-7-yl]heptyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-64-1 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-7-[7-(4-methoxybutoxy)heptyl]-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 278604-65-2 HCAPLUS

CN Androst-4-en-3-one, 7-[7-(3-butenyloxy)heptyl]-17-hydroxy-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-67-4 HCAPLUS

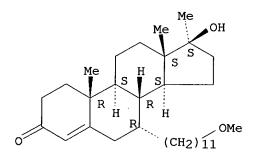
CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[11-(phenylthio)undecyl]-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-68-5 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-7-(11-methoxyundecyl)-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 278604-69-6 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[9-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]nonyl]-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-70-9 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[7-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]heptyl]-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-71-0 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[7-[(4,4,5,5,5,5-pentafluoropentyl)sulfonyl]heptyl]-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-72-1 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[11-[(4,4,5,5,5pentafluoropentyl)sulfinyl]undecyl]-, (7.alpha.,17.beta.)- (9CI) (CA
INDEX NAME)

RN 278604-73-2 HCAPLUS

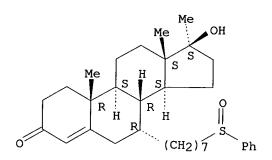
CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[11-[(4,4,5,5,5-pentafluoropentyl)sulfonyl]undecyl]-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-74-3 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[7-(phenylsulfinyl)heptyl]-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



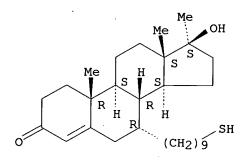
RN 278604-75-4 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[7-(phenylsulfonyl)heptyl]-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-76-5 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-7-(9-mercaptononyl)-17-methyl-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

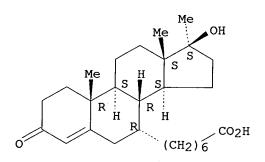
Absolute stereochemistry.



RN 278604-77-6 HCAPLUS

CN Androst-4-ene-7-heptanoic acid, 17-hydroxy-17-methyl-3-oxo-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 278604-78-7 HCAPLUS

CN Androst-4-ene-7-heptanamide, N-butyl-17-hydroxy-N,17-dimethyl-3-oxo-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-81-2 HCAPLUS

CN Androst-4-ene-7-nonanamide, N-butyl-17-hydroxy-N,17-dimethyl-3-oxo-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-82-3 HCAPLUS

CN Androst-4-ene-7-undecanoic acid, 17-(acetyloxy)-17-methyl-3-oxo-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-83-4 HCAPLUS

CN Androst-4-ene-7-undecanamide, 17-(acetyloxy)-N-butyl-N,17-dimethyl-3-oxo-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-84-5 HCAPLUS

CN Androst-4-ene-7-undecanamide, N-butyl-17-hydroxy-N,17-dimethyl-3-oxo-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-85-6 HCAPLUS

CN Propanedioic acid, [9-[(7.alpha.,17.beta.)-17-hydroxy-17-methyl-3-oxoandrost-4-en-7-yl]nonyl]-, diethyl ester (9CI) (CA INDEX NAME)

RN 278604-86-7 HCAPLUS

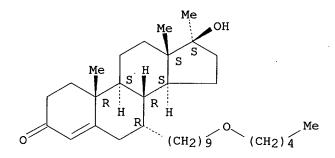
CN Androst-4-ene-7-undecanoic acid, .alpha.-acetyl-17-hydroxy-17-methyl-3-oxo-, ethyl ester, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-87-8 HCAPLUS

CN Androst-4-en-3-one, 17-hydroxy-17-methyl-7-[9-(pentyloxy)nonyl]-, (7.alpha., 17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 278604-88-9 HCAPLUS

CN Pentanamide, N-[9-[(7.alpha.,17.beta.)-17-hydroxy-17-methyl-3-oxoandrost-4-en-7-yl]nonyl]- (9CI) (CA INDEX NAME)

RN 278604-89-0 HCAPLUS

CN Methanesulfonamide, N-[9-[(7.alpha.,17.beta.)-17-hydroxy-17-methyl-3-oxoandrost-4-en-7-yl]nonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-90-3 HCAPLUS

CN Androst-4-en-3-one, 17-(acetyloxy)-7-(9-chlorononyl)-6-hydroxy-17-methyl-, (6.beta.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-91-4 HCAPLUS

CN Androst-4-en-3-one, 17-(acetyloxy)-6-hydroxy-7-(9-hydroxynonyl)-17-methyl-, (6.beta.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-92-5 HCAPLUS

CN Androst-4-en-3-one, 6,17-dihydroxy-7-(7-hydroxyheptyl)-17-methyl-, (6.beta.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 278604-93-6 HCAPLUS

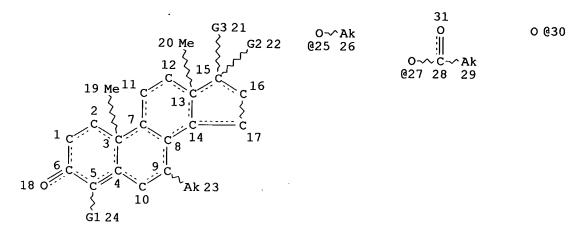
CN Androst-4-ene-7-octanenitrile, 6,17-dihydroxy-17-methyl-3-oxo-, (6.beta.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

RN 278604-94-7 HCAPLUS

CN Androst-4-en-3-one, 7-[7-(4-chlorobutoxy)heptyl]-6,17-dihydroxy-17-methyl-, (6.beta.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

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ΤI Preparation of steroid derivatives

Liao, Shutsung; Song, Ching

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Ι

The steroid derivs. I (R3 = H, amino, carboxyl, oxo, halo, sulfonic acid, AB -O-sulfonic acid, or alkyl that is optionally inserted with -NH-,-N(alkyl)-, -O-, -S-, -SO-, -SO2-, -O-SO2-, -SO2-O-, -O-SO3-, -SO3-O-, -CO-, -CO-O-, -CO-NH-, -CO-N(alkyl)-, -NH-CO-, or -N(alkyl)-CO-, and further optionally substituted with hydroxy, halo, amino, carboxyl, sulfonic acid, or -O-sulfonic acid),. R1, R2, R4, R4', R6, R7, R11, R12, R15, R16, and R17', independently, is H, hydroxy, amino, carboxyl, oxo, halo, sulfoic acid, -O-sulfonic acid, or alkyl that is optionally inserted with -NH-, -N(alkyl)-, -O-, -S-, -SO-, -SO2-, -O-SO2-, -SO2-0-, -O-SO3-, -SO3-O-, -CO-, -CO-O-, -O-CO-, -CO-NH-, -CO-N(alkyl)-, -NH-CO-, or -N(alkyl)-CO-, and further optionally substituted with hydroxy, halo, amino, carboxyl, sulfonic acid, or -O-sulfonic acid. R5, R8, R9, R10, R13, and R14, independently, is H, alkyl, haloalkyl, hydroxyalkyl, alkoxy, hydroxy, or amino; R17 is -X-Y-Z, in which X is a bond, or alkyl or alkenyl, optionally inserted with -NH-, -N(alkyl)-, -O-, or -S-, and further optionally forming a cyclic moiety with R16 and the 2 ring carbon atoms to which R16 and R17 are bonded; Y is -CO-, -SO-, -SO2-, -O-SO2-, -SO2-O-, -O-SO3-, -SO3-O-, -CO-O-, -O-CO-, -CO-NH-,-CO-N(alkyl)-, -NH-CO-, -N(alkyl)-CO-, or a bond. Z = alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl, aralkyl, or heteroaralkyl, and is optionally substituted with hydroxy, alkoxy, amino, halo, sulfonic acid, -O-sulfonic acid, carboxyl, oxo, alkyloxycarbonyl, alkylcarbonyloxy, alkylaminocarbonyl, alkylcarbonylamino, alkylcarbonyl, alkylsulfinyl, alkylsulfonyl, or alkylthio; or is -CH(A)-B with A being a side chain of an amino acid, and B being hydrogen, -NRaRb, or -COORc wherein each of Ra, Rb, and Rc, independently, is hydrogen or alkyl; n is 0, 1, or 2. Provided that when Z is substituted with carboxyl or alkyloxycarbonyl, Y is a bond and either X or Z contains at least one double bond, and that when Y is a bond,

II

either X is -NH-alkyl, -NH-alkenyl, -N(alkyl)-alkyl-, -N(alkyl)-alkenyl-, -O-alkyl-, -O-alkenyl-, -S-alkyl-, or -S-alkenyl-; or Z is substituted with halo, sulfonic acid, -O-sulfonic acid, alkylsulfinyl, or alkylsulfonyl, or is alkenyl or their salts were prepd. Thus, to a stirred soln. of L- (or D-) phenylalanine ester hydrochloride in dry DMF was added triethylamine and the mixt. was stirred at room temp. for 10 min, bile acid and 1-ethyl-3-[3-dimethylaminopropyl]-carbodiimide were then added and the suspension was stirred at room temp. overnight. Reaction mixt. was dild. with water and Et acetate, the org. layer was sepd. and the water layer was extd. with Et acetate again, the combined org. layer was then washed with 1N HCl, water, 1N NaOH and water, and dried (MgSO4), removed the solvent under reduced pressure to afford the steroid derivs., e.g. II. Steroid derivs. of I interact with nuclear liver X receptor (LXR) and ubiquitous receptor (UR), and can be used to treat a variety of LXR- or UR- mediated disorders.

ST steroid deriv prepn nuclear receptor

ΙT Nuclear receptors

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(liver X and ubiquitous; prepn. of steroid derivs.)

IT Transformation, genetic

(mammalian cell; prepn. of steroid derivs.)

IT 1672-46-4P 2868-48-6P 1173-32-6P 10538-59-7P 115679-81-7P 300548-56-5P 300548-57-6P 305835-13-6P 305835-16-9P 305835-18-1P 305835-20-5P 305835-22-7P 305835-25-0P 305835-26-1P 305835-27-2P 305835-28-3P 305835-29-4P 305835-30-7P 305835-33-0P 305835-35-2P 305835-39-6P 305835-37-4P 305835-41-0P 305835-43-2P 305835-45-4P 305835-47-6P, Cholesta-5,24-diene-3,26-diol 305835-48-7P 305835-49-8P 305835-50-1P 305835-51-2P 305835-52-3P 305835-53-4P 305835-54-5P 306759-81-9P 306759-82-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of steroid derivs.)

RE.CNT THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

- (1) Angelico; Scandinavian Journal of Gasteroenterology 1995, V30(12), P1178 CAPLUS
- (2) Ruelle; International Journal of Pharmaceutics 1997, V157(2), P219 CAPLUS
- (3) Xia, P; Heterocycles 1998, V47(2), P703 CAPLUS

MSTR 1A

```
= H / OH / NH2 / CO2H / F / Cl / Br / I / SO3H /
G1
             OSO3H / alkyl<(1-8)> (SO (1-) G3)
G2
          = OH / F / Cl / Br / I / NH2 / CO2H / SO3H / OSO3H
G3
G4
          = H / OH / NH2 / CO2H / F / Cl / Br / I / SO3H /
             OSO3H / alkyl<(1-8)> (SO (1-) G3)
          = H / alkyl < (\bar{1}-8) > (SO (1-) G7) /
G5
             alkyl < (1-8) > (SR (1-) OH) / alkoxy < (1-8) > / OH / NH2 /
             (SC Me)
G6
          = (0-2) CH2
G7
          = F / Cl / Br / I
         = alkyl<(1-8)> (SO (1-) G9) / alkenyl<(2-8)> (SO) / alkynyl<(2-8)> (SO) / cycloalkyl<(3-8)> (SO) / Hy<EC (3-8) A (1-) Q, AR (0), BD (0-) D (0) T> (SO) /
G8
            cycloalkenyl<(3-8)> (SO) / aryl<(6-12)> (SO) / heteroaryl<EC (-12) A (1-) Q> (SO) / 62 / 39 / 58 / 44 / 50 / 80 / (SC 92 / 100 / 113 / 117 / 126 / 131 / 145 / 155 / 161 /
            169 / 183)
Ģ12
              G14-C(O)-G13
                                   G15—G13 G17—G13 50 51 58
                                                                62<sup>18</sup>≡0
Me
                                            -CH<sub>2</sub>--CH<sub>2</sub>--C(0)-G25
Мe
                                            С(O)-NH---СH<sub>2</sub>--СО<sub>2</sub>H
                                                                Ме
                                      HN----C(O)--p-C6H4-N-
                        Ģ33
     -CH2-CH2-CH2-CH-Me
```

```
Me
                     CO2H
                               _{183}^{\text{C}(O)}-NH---CH<sub>2</sub>--CH<sub>2</sub>--CH<sub>2</sub>--C1
                Ġ34
 G9
         = R / aryl < (6-12) > (SO) /
           heteroaryl<EC (-12) A (1-) Q> (SO)
 G10
         = H / NH2 \overline{/} alkylamino<(1-8)> / dialkylamino<(1-8)> /
 4° (0)-G11
 G11
         = OH / alkoxy<(1-8)>
 G12
         = H / R<TX "side chain of amino acid"> / (SC 89)
 H2C-p-C6H4G23
 G13
         = alkyl<(1-8)> (SO (1-) G9) / alkenyl<(2-8)> (SO) /
           alkynyl<(2-8)> (SO) / cycloalkyl<(3-8)> (SO) /
           Hy<EC (3-8) A (1-) Q, AR (0), BD (0-) D (0) T> (SO) /
           cycloalkenyl<(3-8)>(SO) / aryl<(6-12)>(SO) /
           heteroaryl<EC (-12) A (1-) Q> (SO) / 64 / 47
  G12
      -G10
            6418=0
G14
        = NULL / alkylene<(1-8)> / alkenylene<(2-8)>
G15
        = 66-15 67-51 / 60-15 61-51 / 52-15 53-51 /
           69-15 71-51 / 72-15 74-51
           60 61 502
                                 6<sup>G14-O</sup>-7<sup>SO</sup>2 7<sup>G14-C</sup>(O)-G19
G16
        = 54-15 55-53 / 56-15 57-53 / 77-15 79-53
           56^{14} - 5(0) 79^{14} - 0 - 7802
G17
        = alkylene<(1-8)> / alkenylene<(2-8)>
G18
        = Ak<EC (1-8) C, BD (0-) D (0-) T> (SO) /
          Cb<EC (3-8) C, BD (0-) D (0) T> (SO) /
          Hy < EC (3-8) A (1-) Q, AR (0), BD (0-) D (0) T> (SO)
G19
       = NH / 75
```

```
-G20
 G20
         = alkyl < (1-8) >
 G21
         = 0 / NH / 83 / 85-15 86-81
      -G20
            85<sup>17</sup>—G22
 G22
         = 0 / NH / 87
 8N----G20
 G23
        = H / OH
        = OH / alkoxy<(1-8)> / NH2 / F / Cl / Br / I / SO3H /
 G24
           OSO3H / 143 / alkylcarbonyloxy<(1-8)> /
           alkylcarbonylamino<(1-8)> / alkylcarbonyl<(1-8)> /
           alkylsulfinyl<(1-8)> / alkylsulfonyl<(1-8)> /
          alkylthio<(1-8)>
 143°(0)·G28
G25
        = OMe / 106 / 110 / 137
                    ^{\text{HN}---\text{CH}_2-\text{CF}_3}
     -CH2-CH2-Cl
                                         -CH---C(0)-OMe
G26
        = H / OH / NH2 / CO2H / F / Cl / Br / I / SO3H /
          OSO3H / alkyl < (1-8) > (SO (1-) G3)
G27
G28
        = OH / alkoxy<(1-8)> / alkylamino<(1-8)> / OEt
G29
        = F / OH / H
G30
        = H / OH / NH2 / CO2H / F / Cl / Br / I / SO3H /
          OSO3H / alkyl<(1-8)> (SO (1-) G3)
G31
        = H / alkyl < (1-8) > (SO (1-) G7) /
          alkyl < (1-8) > (SR (1-) OH) / alkoxy < (1-8) > / OH / NH2 /
          (SC Me)
G32
       = H
G33
       = CF3 / OSO3H / CO2H / CONH2
G34
       = H / F
G35
       = H / alkyl < (1-8) > (SO (1-) G7) /
          alkyl < (1-8) > (SR (1-) OH) / alkoxy < (1-8) > / OH / NH2 /
          (SC Me)
G1 + G2 = 0
G26+G27=0
G27+G35= NULL
MPL:
         claim 1
```

NTE: additional derivatization also claimed

NTE: substitution is restricted

NTE: or salts

NTE: also incorporates claims 18, 35 and 49

MSTR 1B

```
= H / OH / NH2 / CO2H / F / Cl / Br / I / SO3H /
G1
        OSO3H / alkyl<(1-8)> (SO (1-) G3)
```

G2

G3 = OH / F / Cl / Br / I / NH2 / CO2H / SO3H / OSO3H

G4 = H / OH / NH2 / CO2H / F / Cl / Br / I / SO3H /

OSO3H / alkyl<(1-8)> (SO (1-) G3)

= H / alkyl < (1-8) > (SO (1-) G7) /G5 alkyl < (1-8) > (SR (1-) OH) / alkoxy < (1-8) > / OH / NH2 /(SC Me)

G6 = (0-2) CH2

G7

= F / Cl / Br / I G8 = alkyl<(1-8)> (SO (1-) G9) / alkenyl<(2-8)> (SO) / alkynyl<(2-8)>(SO) / cycloalkyl<(3-8)>(SO) /Hy<EC (3-8) A (1-) Q, AR (0), BD (0-) D (0) T> (SO) / cycloalkenyl<(3-8)> (SO) / aryl<(6-12)> (SO) /heteroaryl<EC (-12) A (1-) Q> (SO) / 62 / 39 / 58 / 44 / 50 80 / (SC 92 / 100 / 113 / 117 / 126 / 131 / 145 / 155 / 161 / 169 / 183)

4^C(0)-G11

H₂C-p-C₆H₄G23

```
= NULL / alkylene<(1-8)> / alkenylene<(2-8)>
 G14
 G15
         = 66-15 67-51 / 60-15 61-51 / 52-15 53-51 /
           69-15 71-51 / 72-15 74-51
 5916-Q
            60 61 502
                                   69<sup>614-0</sup>—502 75<sup>614-C</sup>(0)-619
 G16
         = 54-15 55-53 / 56-15 57-53 / 77-15 79-53
 _{54}^{G14} - _{55}^{G02} \quad _{56}^{G14} - _{57}^{G10} \quad _{77}^{G14} - _{0}^{-} - _{79}^{S02}
 G17
        = alkylene<(1-8)> / alkenylene<(2-8)>
 G18
        = Ak < EC (1-8) C, BD (0-) D (0-) T> (SO) /
           Cb<EC (3-8) C, BD (0-) D (0) T> (SO) /
           Hy<EC (3-8) A (1-) Q, AR (0), BD (0-) D (0) T> (SO)
 G19
        = NH / 75
 7½——G20
G20
        = alkyl < (1-8) >
G21
        = 0 / NH / 83 / 85-15 86-81
     −G20
            85<sup>86</sup>8622
        = 0 / NH / 87
    —G20
G23
        = H / OH
G24
        = OH / alkoxy<(1-8)> / NH2 / F / Cl / Br / I / SO3H /
          OSO3H / 143 / alkylcarbonyloxy<(1-8)> /
          alkylcarbonylamino<(1-8)> / alkylcarbonyl<(1-8)> /
          alkylsulfinyl<(1-8)> / alkylsulfonyl<(1-8)> /
          alkylthio<(1-8)>
16(0)-G28
G25
       = OMe / 106 / 110 / 137
    -CH2-CH2-Cl
                    HN-CH2-CF3
                                     HN----CH---C(0)-OMe
```

1507

```
= H / OH / NH2 / CO2H / F / Cl / Br / I / SO3H /
G26
         OSO3H / alkyl<(1-8)> (SO (1-) G3)
G27
       = H
G28
       = OH / alkoxy<(1-8)> / alkylamino<(1-8)> / OEt
G29
       = F / OH / H
G32
       = H
       = CF3 / OSO3H / CO2H / CONH2
G33
G34
       = H / F
G35
       = H / alkyl < (1-8) > (SO (1-) G7) /
         alkyl<(1-8)> (SR (1-) OH) / alkoxy<(1-8)> / OH / NH2 /
G1 + G2 = 0
G26+G27=0
G27+G35= NULL
         claim 1
MPL:
NTE:
         additional derivatization also claimed
         substitution is restricted
NTE:
NTE:
         or salts
NTE:
         also incorporates claims 18, 35 and 49
```

MSTR 1C

```
G1
        = H / OH / NH2 / CO2H / F / Cl / Br / I / SO3H /
           OSO3H / alkyl < (1-8) > (SO (1-) G3)
G2
        = OH / F / Cl / Br / I / NH2 / CO2H / SO3H / OSO3H
G3
G4
        = H / OH / NH2 / CO2H / F / Cl / Br / I / SO3H /
           OSO3H / alkyl<(1-8)> (SO (1-) G3)
G5
        = H / alkyl < (1-8) > (SO (1-) G7) /
           alkyl < (1-8) > (SR (1-) OH) / alkoxy < (1-8) > / OH / NH2 /
           (SC Me)
G6
        = (0-2) CH2
G7
        = F / Cl / Br / I
G8
        = alkyl<(1-8)> (SO (1-) G9) / alkenyl<(2-8)> (SO) /
          alkynyl<(2-8)> (SO) / cycloalkyl<(3-8)> (SO) /
          Hy<EC (3-8) A (1-) Q, AR (0), BD (0-) D (0) T> (SO) /
          cycloalkenyl<(3-8)> (SO) / aryl<(6-12)> (SO) /
heteroaryl<EC (-12) A (1-) Q> (SO) / 62 / 39 / 58 / 44 / 50 /
80 / (SC 92 / 100 / 113 / 117 / 126 / 131 / 145 / 155 / 161 /
          169 / 183)
```

4^C (0)·G11

```
H2C-p-C6H4G23
 G13
         = alkyl<(1-8)> (SO (1-) G9) / alkenyl<(2-8)> (SO) /
           alkynyl<(2-8)>(SO) / cycloalkyl<(3-8)>(SO) /
           Hy<EC (3-8) A (1-) Q, AR (0), BD (0-) D (0) T> (SO) /
           cycloalkenyl<(3-8)>(SO) / aryl<(6-12)>(SO) /
           heteroaryl<EC (-12) A (1-) Q> (SO) / 64 / 47
  Ģ12
            618=0
      -G10
 G14
         = NULL / alkylene<(1-8)> / alkenylene<(2-8)>
         = 66-15 67-51 / 60-15 61-51 / 52-15 53-51 /
 G15
           69-15 71-51 / 72-15 74-51
           6014-502
 5916-Q
                                  69<sup>G14-O</sup>71<sup>SO2</sup>72<sup>G14-C(O)</sup>74<sup>19</sup>
G16
        = 54-15 55-53 / 56-15 57-53 / 77-15 79-53
_{5_{1}^{614}}^{-502} _{5_{1}^{614}}^{502} _{5_{1}^{614}}^{502} _{7_{1}^{614}}^{614}
        = alkylene<(1-8)> / alkenylene<(2-8)>
G17
G18
        = Ak < EC (1-8) C, BD (0-) D (0-) T > (SO) /
          Cb<EC (3-8) C, BD (0-) D (0) T> (SO) /
          Hy<EC (3-8) A (1-) Q, AR (0), BD (0-) D (0) T> (SO)
G19
        = NH / 75
     -G2,0
G20
        = alkyl<(1-8)>
        = 0 / NH / 83 / 85-15 86-81
83
N-
    -G20
           85<sup>17</sup>-622
G22
       = 0 / NH / 87
8N-
     -G20
G23
       = H / OH
G24
       = OH / alkoxy<(1-8)> / NH2 / F / Cl / Br / I / SO3H /
```

```
alkylsulfinyl<(1-8)> / alkylsulfonyl<(1-8)> /
          alkylthio<(1-8)>
143°C28
G25
        = OMe / 106 / 110 / 137
     -CH2-CH2-Cl
                   HN-
110
                        -сн<sub>2</sub>--сғз
                                            -C(O)-OMe
G26
       = H / OH / NH2 / CO2H / F / C1 / Br / I / SO3H /
          OSO3H / alkyl < (1-8) > (SO (1-) G3)
G27
G28
       = OH / alkoxy<(1-8)> / alkylamino<(1-8)> / OEt
       = F / OH / H
G29
       = H / OH / NH2 / CO2H / F / Cl / Br / I / SO3H /
G30
         OSO3H / alkyl<(1-8)> (SO (1-) G3)
G33
       = CF3 / OSO3H / CO2H / CONH2
G34
       = H / F
G35
       = H / alkyl < (1-8) > (SO (1-) G7) /
         alkyl < (1-8) > (SR (1-) OH) / alkoxy < (1-8) > / OH / NH2 /
          (SC Me)
G1 + G2 = 0
G26+G27= O
G27+G35= NULL
MPL:
         claim 1
NTE:
         additional derivatization also claimed
NTE:
         substitution is restricted
NTE:
         or salts
NTE:
         also incorporates claims 18, 35 and 49
```

OSO3H / 143 / alkylcarbonyloxy<(1-8)> /

alkylcarbonylamino<(1-8)> / alkylcarbonyl<(1-8)> /